**HEWLETT-PACKARD COMPANY** Intellectual Property Administration P.O. Box 272400 Fort Collins, Colorado 80527-2400

### PATENT APPLICATION

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### UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): David E. Richardson Confirmation No.: 5369 Application No.: 10/814,224 Examiner: Raj K. Jain

Filing Date: April 1, 2004 Group Art Unit: 2616

Title: Method and System of Managing Traffic in a First Set of Nodes of a Computer Network

Mail Stop Appeal Brief-Patents **Commissioner For Patents** PO Box 1450 Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF
Fransmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on July 1, 2009
X The fee for filing this Appeal Brief is \$540.00 (37 CFR 41.20).
X No Additional Fee Required.
(complete (a) or (b) as applicable)
The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.
(a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:
1st Month 2nd Month 3rd Month 4th Month \$130 \$490 \$1110
The extension fee has already been filed in this application.
(b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.
Please charge to Deposit Account 08-2025 the sum of \$540 . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

Respectfully submitted,

David E. Richardson

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# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

David E. Richardson

Assignee:

Hewlett-Packard Company

Title:

Method and System of Managing Traffic in a First Set of Nodes

of a Computer Network

Serial No.:

10/814,224

Filing Date:

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Examiner:

Raj K. Jain

Group Art Unit:

2616

Docket No.:

100111157-1

Confirmation

5369

No.:

Irvine, California July 1, 2009

MAIL STOP APPEAL BRIEFS - PATENTS COMMISSIONER FOR PATENTS P.O. BOX 1450 ALEXANDRIA, VA 22313-1450

### **APPELLANT'S BRIEF**

Dear Sir:

This paper is responsive to the non-final Final Office Action dated April 28, 2009 and the Advisory Action dated June 19, 2009. The Final Office Action set a period for response that expires July 28, 2009. Further consideration is respectfully requested.

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1015.P304 US

### I. REAL PARTY IN INTEREST

The entire interest in the present application has been assigned to Hewlett-Packard Company LP, a Texas Limited Partnership having a place of business at 20555 S.H. 249, Houston, Texas, 77070.

### II. RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known to the appellant, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

### III. STATUS OF CLAIMS

Claims 1, 3-9, 11-16, 18-23, and 25-30 are pending in the application and are rejected.

The rejection of claims 1, 3-9, 11-16, 18-23, and 25-30 is on appeal.

### **IV. STATUS OF AMENDMENTS**

The appellant's Response to the Final Office Action dated April 28, 2009 was entered.

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### V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 pertains to a method of managing traffic in a first set of nodes of a computer network having first set of nodes and a second set of nodes comprising:

determining a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold, the source being outside a group of network elements assigned to the first set of nodes (102, FIG. 1); and

automatically displaying an indication of the source in response to determining the source (104, FIG. 1), wherein determining the source includes:

determining top talker sources over the first VLAN and a second VLAN (specification paras. [0009]-[0011]); determining VLAN identifiers for the top talker sources (specification para. [0012]); and

displaying the indication if the VLAN identifier of at least one of the top talker sources is not the same as the VLAN identifier of a VLAN being tested (specification paras. [00012]-[00013]).

Independent claim 9 pertains to a computer (202, FIG. 2) for managing traffic in a first set of nodes of a computer network (200, FIG. 2) having a first set of nodes (208, FIG. 2) and a second set of nodes (226, FIG. 2), the computer comprising:

a display (204, FIG. 2); and

a processor (206, FIG. 2) configured to:

determine a source associated with an amount of network traffic over a first set of nodes which exceeds a threshold (specification paras. [00012]-[00013], [00019] lines 1-4),

determine whether the source is outside a group of network elements assigned to the first set of nodes by checking top talker data to determine which of a plurality of top talker sources are not from

the first set of nodes (specification paras. [00021]-[00022]), the processor configured to automatically send to the display an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and the second set of nodes is a second VLAN (specification paras. [00012]-[00013], [00023]-[00024]).

Independent claim 16 pertains to a system (202, FIG. 2) for managing traffic in a first set of nodes of a computer network (200, FIG. 2) comprising:

- a first set of nodes (208, FIG. 2); and
- a computer (202, FIG. 2) coupled with the first set of nodes and configured to determine a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold (specification para. [00020]), and to further determine whether the source is outside a group of network elements assigned to the first set of nodes by accessing source identifiers of top talker sources from management data, the computer configured to automatically display an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and a second set of nodes is a second VLAN (specification para. [00019]).

Independent claim 23 pertains to a computer-readable medium containing a program (specification para. [0008], lines 6-8) executable by a processor for managing traffic in a first set of nodes of a computer network having a first set of nodes and a second set of nodes, the program comprising:

- determining a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold (102, FIG. 1, specification para. [0009]),
- determining whether the source is outside a group of network elements assigned to the first set of nodes based on whether source identifiers for top talker sources are the same as a source identifier for the first set of nodes (specification paras. [00011]- [00012]); and
- automatically displaying an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN

and the second set of nodes is a second VLAN (specification paras. [00012]-[00013]).

### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 3-9, 11-16, 18-23, and 25-30 are unpatentable under 35 U.S.C. 103(a) over Fletcher *et al.* (USP 6,085,243) in view of Voit *et al.* (USP 7,042,880), taking into account all limitations of the claims.

### VII. ARGUMENT

### Claim Rejections under 35 U.S.C. §103

Claims 1, 3-9, 11-16, 18-23, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher *et al.* (USP 6,085,243) in view of Voit *et al.* (USP 7,042,880). Claim 1 recites:

"a processor configured to:

automatically displaying an indication of the source in response to determining the source, wherein determining the source includes:

determining top talker sources over the first VLAN and a second VLAN;

determining VLAN identifiers for the top talker sources; and

displaying the indication if the VLAN identifier of at least one of the top talker sources is not the same as the VLAN identifier of a VLAN being tested."

Neither Voit or Fletcher, alone or in combination, teach or suggest the features as set forth in the claims, or as characterized by the Examiner. In particular, neither reference teaches or suggests determining a source with an amount of network traffic over a first set of nodes which exceeds a threshold, or determining which of a plurality of top talker sources are not from the first set of nodes. (Emphasis added.) In the Final Office Action, Voit is cited as teaching "top talkers as congestion based nodes that exceed the thresholds of specific nodes...and testing of VLAN that are not the same VLAN as the top talker sources or the congested sources." (Final Office Action, page 3, lines 22-26). In the Advisory Action, the Examiner stated that the limitation of "determining which of a plurality of top talker sources are not from the first set of nodes" was not part of the

original claim set and is therefore moot. (Advisory Action dated June 19, 2009, continuation sheet line 17). Appellant respectfully asserts that since this limitation was added to claim 1 in response to the first Office Action dated October 30, 2008, the limitation is not moot and should be taken into consideration. (See Appellant's Response To Office Action Dated October 30, 2008, page 2.)

The device in Voit enables an operator to control flows and queue network traffic to avoid downstream limitations so that an ADSL Data Network (ADN) is not overwhelmed with content that exceeds it physical rate limitations that result in packets being dropped. (Voit, col. 20 lines 1-17). The references, alone and in combination, do not disclose or suggest determining top talker sources, or displaying an indication of the source if the VLAN identifier of at least one of the top talker sources is not the same as the VLAN identifier of a VLAN being tested. While the references teach tracking or monitoring network traffic volume and errors, nothing in the references indicates which of the traffic sources are top talkers. (See, e.g., Fletcher col. 4 lines 47-51, and Voit col. 32 lines 26-50). The references also do not test whether the VLAN identifier of at least one of the top talker sources is the same as the VLAN identifier of a VLAN being tested before displaying the indicator of at least one of the top talker sources.

The Examiner grouped the rejection of independent claims 1, 9, 16, and 23 together in the Final Office Action, and when Appellant addressed the rejections together, the Examiner responded that the features upon which Applicant relies are not recited in claims 9, 16, and 23. (Final Office Action, pages 2-3, and Advisory Action Continuation Sheet, lines 26-27.)

Independent claim 9 recites:

"determine a source associated with an amount of network traffic over a first set of nodes which exceeds a threshold, determine whether the source is outside a group of network elements assigned to the first set of nodes by checking top talker data to determine which of a plurality of top talker sources are not from the first set of nodes, the processor configured to automatically send to the display an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and the second set of nodes is a second VLAN." (Emphasis added).

Independent claim 16 recites

"a computer coupled with the first set of nodes and configured to determine a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold, and to further determine whether the source is outside a group of network elements assigned to the first set of nodes by accessing source identifiers of top talker sources from management data, the computer configured to automatically display an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and a second set of nodes is a second VLAN." (Emphasis added).

### Independent claim 23 recites

"determining a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold,

determining whether the source is outside a group of network elements assigned to the first set of nodes based on whether source identifiers for top talker sources are the same as a source identifier for the first set of nodes; and

automatically displaying an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and the second set of nodes is a second VLAN." (Emphasis added).

The highlighted portions of claims 9, 16, and 23 above are similar to "determining which of a plurality of top talker sources are not from the first set of nodes" in Claim 1. Claims 9, 16, and 23 are distinguishable from the cited references for at least the reasons provided above for claim 1 with respect to this feature.

Claims 3-8, 11-15, 18-22, and 25-30 depend from respective claims 1, 9, 16, and 23 and include features that further distinguish them from the cited references. For example, claims 3, 11, 18, and 25 recite "the indication is a user name associated with the source." In contrast, Fletcher teaches an NDIS Desk Top Agent (DTA) that establishes a source of directed packets to analyze as well as means to communicate with the dRMON proxy. (Fletcher col. 8, lines 5-10). The dRMON proxy is not a username associated with a top talker source.

As a further example, claims 4, 12, 19, and 26 recite "reassigning the source to the first VLAN in response to determining the source." Voit is cited as teaching this feature, however, Voit instead only teaches reassigning an IP address to another user when the first user's session ends. (Voit, col. 24 lines 11-20 and 40-47, and col. 25 lines 30-36). An IP address is not the same as a top talker source, nor is the IP address reassigned in response to determining the source.

### CONCLUSION

The application, including claims 1, 3-9, 11-16, 18-23, and 25-30, is believed to be in condition for allowance and a notice to that effect is solicited.

I hereby certify that this correspondence is being transmitted to the USPTO on the date shown below:
/Mary Jo Bertani/ (Signature)
Mary Jo Bertani (Printed Name of Person Signing Certificate)
July 1, 2009 (Date)

Respectfully submitted,

/Mary Jo Bertani/

Mary Jo Bertani Attorney for Appellant(s) Reg. No. 42,321

### VIII. CLAIMS APPENDIX

1. A method of managing traffic in a first set of nodes of a computer network having first set of nodes and a second set of nodes comprising:

determining a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold, the source being outside a group of network elements assigned to the first set of nodes; and automatically displaying an indication of the source in response to determining the source, wherein determining the source includes:

determining top talker sources over the first VLAN and a the second VLAN:

determining VLAN identifiers for the top talker sources; and displaying the indication if the VLAN identifier of at least one of the top talker sources is not the same as the VLAN identifier of a VLAN being tested.

- 2. (Canceled)
- 3. The method of claim 1, wherein the indication is a user name associated with the source.
- 4. The method of claim 1, wherein the source is assigned to the second VLAN, the method comprising:

reassigning the source to the first VLAN in response to determining the source.

- The method of claim 4, wherein the source is automatically reassigned
- 6. The method of claim 1, wherein traffic data is obtained from the first VLAN using a network management protocol.
- 7. The method of claim 6, wherein the traffic data is obtained using a remote monitoring protocol.

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- 8. The method of claim 1, wherein the determination of the source includes determining the top sources of traffic on the first VLAN.
- 9. A computer for managing traffic in a first set of nodes of a computer network having a first set of nodes and a second set of nodes, the computer comprising:

a display; and

a processor configured to:

determine a source associated with an amount of network traffic over a first set of nodes which exceeds a threshold.

determine whether the source is outside a group of network elements assigned to the first set of nodes by checking top talker data to determine which of a plurality of top talker sources are not from the first set of nodes, the processor configured to automatically send to the display an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and the second set of nodes is a second VLAN.

### 10. (Canceled)

- 11. The computer of claim 9, wherein the indication is a user name associated with the source.
- 12. The computer of claim 9, wherein the source is assigned to the second VLAN, and wherein the processor is configured to reassign the source to the first VLAN in response to determining the source.
- 13. The computer of claim 9, wherein the processor is configured to obtain traffic data from the first VLAN using a network management protocol.
- 14. The computer of claim 13, wherein the processor is configured to obtain traffic data using a remote monitoring protocol.
- 15. The computer of claim 9, wherein the processor is configured to

identify any sources of traffic which are associated with a given threshold of traffic on the first VLAN.

- 16. A system for managing traffic in a first set of nodes of a computer network comprising:
  - a first set of nodes; and
  - a computer coupled with the first set of nodes and configured to determine a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold, and to further determine whether the source is outside a group of network elements assigned to the first set of nodes by accessing source identifiers of top talker sources from management data, the computer configured to automatically display an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and a second set of nodes is a second VLAN.

## 17. (Canceled)

- 18. The system of claim 16, wherein the indication is a user name associated with the source.
- 19. The system of claim 16, wherein the source is assigned to the second VLAN within the system, and wherein the computer is configured to reassign the source to the first VLAN in response to determining the source.
- 20. The system of claim 16, wherein the computer is configured to obtain traffic data from the first VLAN using a network management protocol.
- 21. The system of claim 20, wherein the computer is configured to obtain traffic data from the first VLAN using a remote monitoring protocol.
- 22. The system of claim 16, wherein the computer is configured to identify any sources of traffic which are associated with a given threshold of traffic on the first VLAN.

- 23. A computer-readable medium containing a program executable by a processor for managing traffic in a first set of nodes of a computer network having a first set of nodes and a second set of nodes, the program comprising:
  - determining a source associated with an amount of network traffic over the first set of nodes which exceeds a threshold,
  - determining whether the source is outside a group of network elements assigned to the first set of nodes based on whether source identifiers for top talker sources are the same as a source identifier for the first set of nodes; and
  - automatically displaying an indication of the source in response to determining the source, wherein the first set of nodes is a first VLAN and the second set of nodes is a second VLAN.

### 24. (Canceled)

- 25. The computer-readable medium containing a program of claim 23, wherein the indication is a user name associated with the source.
- 26. The computer-readable medium containing a program of claim 23, wherein the source is assigned to the second VLAN, the method comprising: reassigning the source to the first VLAN in response to determining the source.
- 27. The computer-readable medium containing a program of claim 26, wherein the source is automatically reassigned.
- 28. The computer-readable medium containing a program of claim 23, wherein traffic data is obtained from the first VLAN using a network management protocol.
- 29. The computer-readable medium containing a program of claim 28, wherein the traffic data is obtained using a remote monitoring protocol.

30. The computer-readable medium containing a program of claim 23, wherein the							
determination of the source includes identifying any sources of traffic which are							
associated with a given threshold of traffic on the first VLAN.							
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# **IX. EVIDENCE APPENDIX** None.

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	X. RELATE	D PROCEEDING	SS APPENDIX	
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